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EXAMINER

CHANKONG, DOHM

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/529,701
Filing Date: March 29, 2005
Appellant(s): WARDWELL, DAVID R.

Nicholas T. Peters, Reg. No. 53,456
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/3/2010 appealing from the Office action mailed 5/13/2010.

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(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-12 are rejected and pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

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(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

US Patent No. 6957281	Mann et al.	10/18/2005
US Patent No. 6907041	Turner et al.	6/14/2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

I. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the Manner in which the invention was made.

A. Claims 1-12 are rejected under 35 U.S.C §103(a) as being unpatentable over Mann et al, U.S Patent NO. 6.957.281 ["Mann"], in view of Turner et al, U.S. Patent No. 6.907.041 ["Turner"].

All citations in the following claim mapping are to Mann unless otherwise noted.

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Claim 1

As to claim 1, Mann as modified by Turner discloses a method for collating data in a distributed computer network having non-synchronous compute nodes, said method comprising:

receiving a plurality of sets of data packets from a plurality of physically separated non synchronous compute nodes, wherein individual ones of said sets of data packets are provided individual ones of said non-synchronous compute nodes [Figure 1 «item 210» | column 1 «lines 45-60» | column 4 «lines 52-60» where : Mann discloses receiving packets of different sessions at the controller, each session representing communications with a different network node] and wherein individual ones of the plurality of non-synchronous compute nodes comprise individual sources of data packets [column 1 «lines 45-48»: plurality of network nodes accessing a network resource send data packets];

inserting said data packets into a software container according to predetermined rules for determining a logical order for said data packets [column 3 «lines 6-9 and 41-48» | column 4 «lines 30-51» | column 5 «lines 18-28» where : Mann's queue is analogous to the claimed software container];

locating common groups of said data packets within said software container according to said predetermined rules [column 3 «lines 41-48» where : Mann discloses grouping packets based on common session numbers | Turner, column 5 «lines 9-26» where : Turner discloses merging packets based on timestamp];

protecting said software container against incomplete groups of said data packets according to a grouping criteria [column 5 «lines 18-28» | column 6 «lines 39-46» where : Mann discloses using sequence numbers to order the packets. Sequence numbers are well known in the

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art to help determine whether there are missing packets within the sequence of packets of a session]; and

outputting of said data packets in respective logical groups that represent an aggregate packet from at least two of the non-synchronous compute nodes after said grouping criteria has been met [column 3 «line 49» to column 4 «line 18» | Turner, Fig. 2A & column 5 «lines 9-26» where : Turner discloses merging packets based on timestamp which means that the merged packet contains packets from more than two of the nodes].

As indicated in the foregoing mapping, Mann does not disclose outputting said packets in respective logical groups that represent an aggregate packet from at least two of the non-synchronous compute nodes. However, such a feature was well known in the art at the time of Applicant's invention as evidenced by Turner.

Turner discloses grouping packets based on timestamp and forming an aggregate packet based on these grouped packets. Turner further discloses that the packets are from at least two of the compute nodes in the network.

It would have been obvious to one of ordinary skill in the art to have modified Mann's system to include Turner's timestamp grouping functionality. Mann discloses that his system utilizes classification criterion to classify (i.e., group) received packets. Turner discloses using a packet's timestamp as a classification criterion and utilizing this criterion results in an aggregate packet from at least two of the nodes because the system looks at a packet's timestamps and not session numbers. Such a modification would have improved Mann's system because it would allow grouping packets based on time order (i.e., merging of streams of time stamps) [Turner, column 5 «lines 24-26].

Claims 2, 6, and 10

Mann does disclose inserting data packets into said software container but does not expressly disclose performing said insertion according to individual packet time reference. In the same field of invention, Turner is directed towards a communications network for resequencing packets using a packet time reference, aka a timestamp [column 3 «lines 31-47»]. Turner expressly discloses inserting said data packets into a software container according to individual packet time reference [column 4 «line 65» to column 5 «line 7»].

It would have been obvious to one of ordinary skill in the art to incorporate timestamps into Mann's insertion functionality. Use of timestamps enables the ability to better resequence packets into the correct order and to insure that they are transmitted in the correct order to the next destination in the network.

As to claims 6 and 10, they merely are directed towards an apparatus and computer program product on a medium, that implement the steps of the method of claim 2. Therefore, claims 6 and 10 are rejected for at least the same reasons set forth for claim 2.

Claims 3, 7, and 11

Mann does disclose locating common groups of data packets within said software container, but does not disclose doing so based on individual packet time reference. Turner discloses locating common groups based on individual packet time reference [column 4 «lines 56-59» | column 5 «lines 9-26» where : Turner's merging of different groups based on their time stamps is analogous to the claimed functionality].

It would have been obvious to one of ordinary skill in the art to have modified Mann

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to include the function of grouping packets based on packet time reference. Turner discloses that the ability to group based on time stamps benefits a system by enabling resequencing of a multiplicity of packets into a sorted order [column 4 «lines 56-59» | column 5 «lines 14-18»].

As to claims 7 and 11, they merely are directed towards an apparatus and computer program product on a medium, that implement the steps of the method of claim 3. Therefore, claims 7 and 11 are rejected for at least the same reasons set forth for claim 3.

Claims 4, 8, and 12

Mann discloses outputting logical group of said data packets in respective logical groups that represent time-synchronous packets from said non-synchronous compute nodes after said grouping criteria has been met [column 4 «lines 1-17 and 52-60» | column 5 «lines 18-28» | column 6 «lines 39-46» where : Mann discloses outputting a bundle of packets based on the packet's session number and sequence number within that particular session. Mann's packets are therefore synchronous based on their sequence and session numbers].

As to claims 8 and 12, they merely are directed towards an apparatus and computer program product on a medium, that implement the steps of the method of claim 4. Therefore, claims 8 and 12 are rejected for at least the same reasons set forth for claim 4.

Claims 5 and 9

As to claims 5 and 9, they merely are directed towards an apparatus and computer program product on a medium, respectively, that implement the steps of the method of claim 1. Therefore, claims 5 and 9 are rejected for at least the same reasons set forth for claim 1.

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(10) Response to Argument

Mann is directed to a system "to take advantage of the fact that packets are often sent in bursts." Col. 2, ll. 3-4. Specifically, Mann discloses aggregating multiple packets into a packet bundle based on a classification criterion. Abstract. Some examples of such criterion are session number or hash result of session number or other fields. Col. 6, ll. 7-8.

Appellant argues that "the modification proposed by the Examiner is taught away from by Mann and would result in a fundamental modification to the teachings of Mann." Appellant bases this argument on a portion of Mann which recites:

"When a plurality of network nodes simultaneously access a common network resource, packets from a communication session may be shuffled with packets from hundreds of other different sessions. Due to this unpredictable data shuffling, a host system generally processes each received packet individually, including identifying a session from the received packet and accordingly identifying a corresponding session on the host system to which the received packet belongs." Col. 1, ll. 45-53.

Based on this disclosure, Appellant argues that Mann is limited to matching packets of the same session. Appellant's argument should not be found persuasive for at least the following reasons: (1) Mann's invention is directed to the broader problem of processing packets that have been bundled together based on some classification and does not limit his invention to only matching packets of the same session; and (2) Mann suggests using different fields of the packet to classify and bundle packets.

1. Mann's invention is directed to classifying packets into bundles and processing packet bundles.

Mann broadly describes his invention as "an arrangement...for ingress processing optimization via traffic classification and grouping." Abstract. The problem to be solved by Mann is not matching up one to one sessions as argued by Appellant but the problem of when "a

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host system generally processes each received packet individually, including" the situation when a host system desires to match a packet to its corresponding session. The use of the term "including" highly suggests that the one to one session matching problem relied upon by Appellant is merely an example of the problem to be solved and not the specific problem to be solved.

At column 3, lines 44-46 and column 4, lines 53-59, Mann further makes it clear that session numbers (i.e., one to one session matching) are merely one example of the classification criterion. Appellant argues that this logic fails because "modification of Mann to group packets together from more than one session" runs counter to Mann's problem to be solved.

As discussed above, Mann is not limited to bundling packets of the same session. Appellant's argument is further undercut by Mann's disclosure that "one or more sessions may be marked with the same session identification." Col. 3, ll. 55-56. Since Mann discloses bundling packets based on session identification and sessions may share the same session identification, Mann clearly allows for the possibility of bundling packets from more than one session. In other words, Mann is interested in the broader idea of classifying and bundling packets based on a criteria.

2. The term "classification criterion" should be broadly interpreted.

Mann expressly provides that packets may be bundled based on some classification where the classification may include a hash result of "other fields" beside the session number. Col. 6, ll. 7-8. In other words, Mann allows for the possibility of using other parts of the packet to classify and bundle packets.

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Turner discloses bundling packets based on a timestamp. Fig. 2A and col. 5, ll. 9-26. Therefore, it would have been obvious to one of ordinary skill in the art to have modified Mann's invention to include a packet's timestamp as the classification criterion used to classify and bundle packets.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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